ABSTRACT OF THE DISCLOSURE

Disclosed herein is a frequency converter using a multi-phase mixer. The frequency converter of the present invention includes an oscillator, and a mixer for down-modulating the frequency of an RF communication signal to provide a modulated output signal. The mixer includes an input unit responding to the RF communication signal, and a driving unit for controlling current signals in response to the clock signals to generate the modulated output signal. The frequency converter using the multi-phase mixer generates an output signal with a frequency approximate to that of a DC signal by greatly decreasing the frequency of a received RF communication signal even though a clock signal with a relatively low frequency is used.